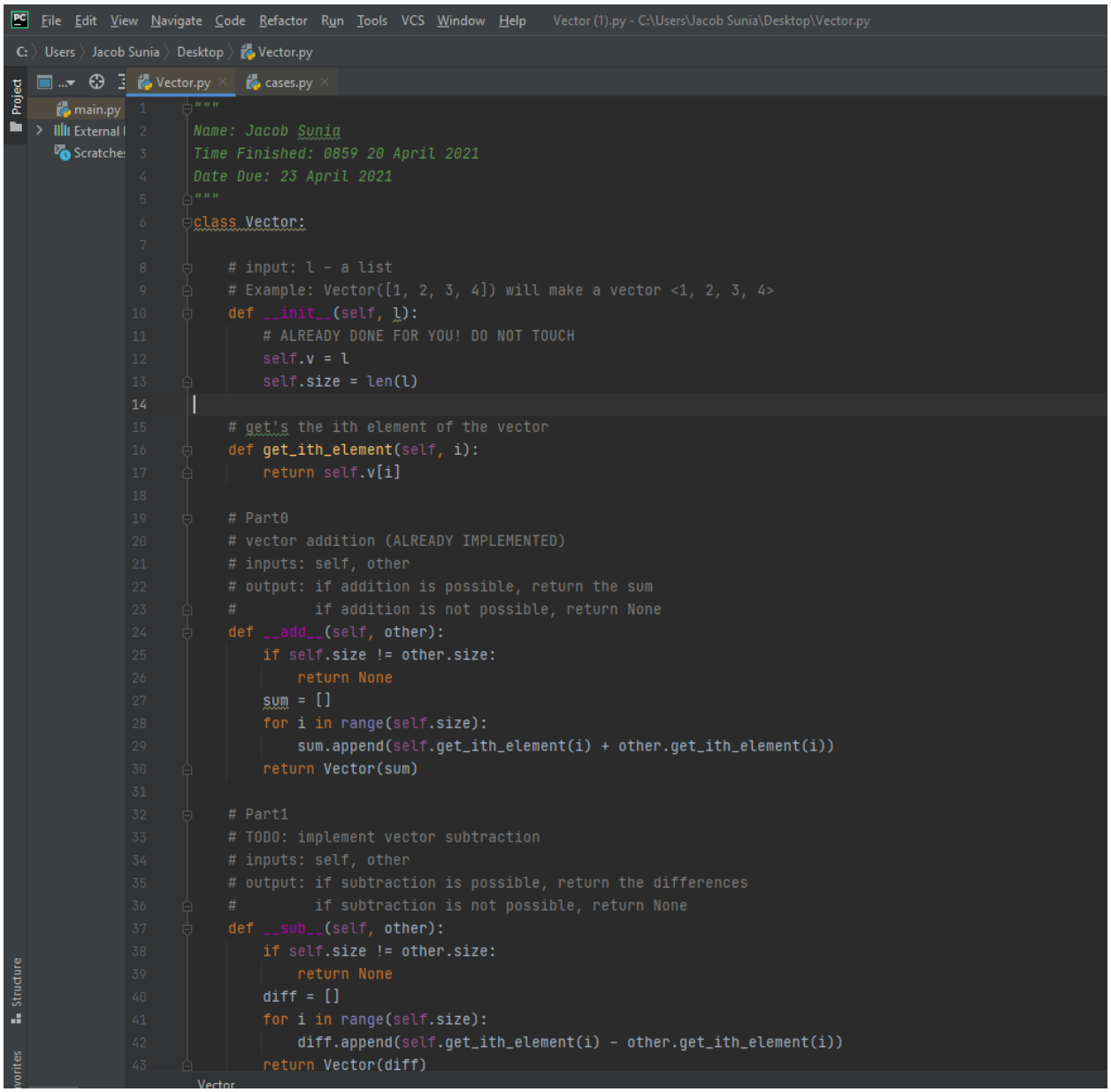
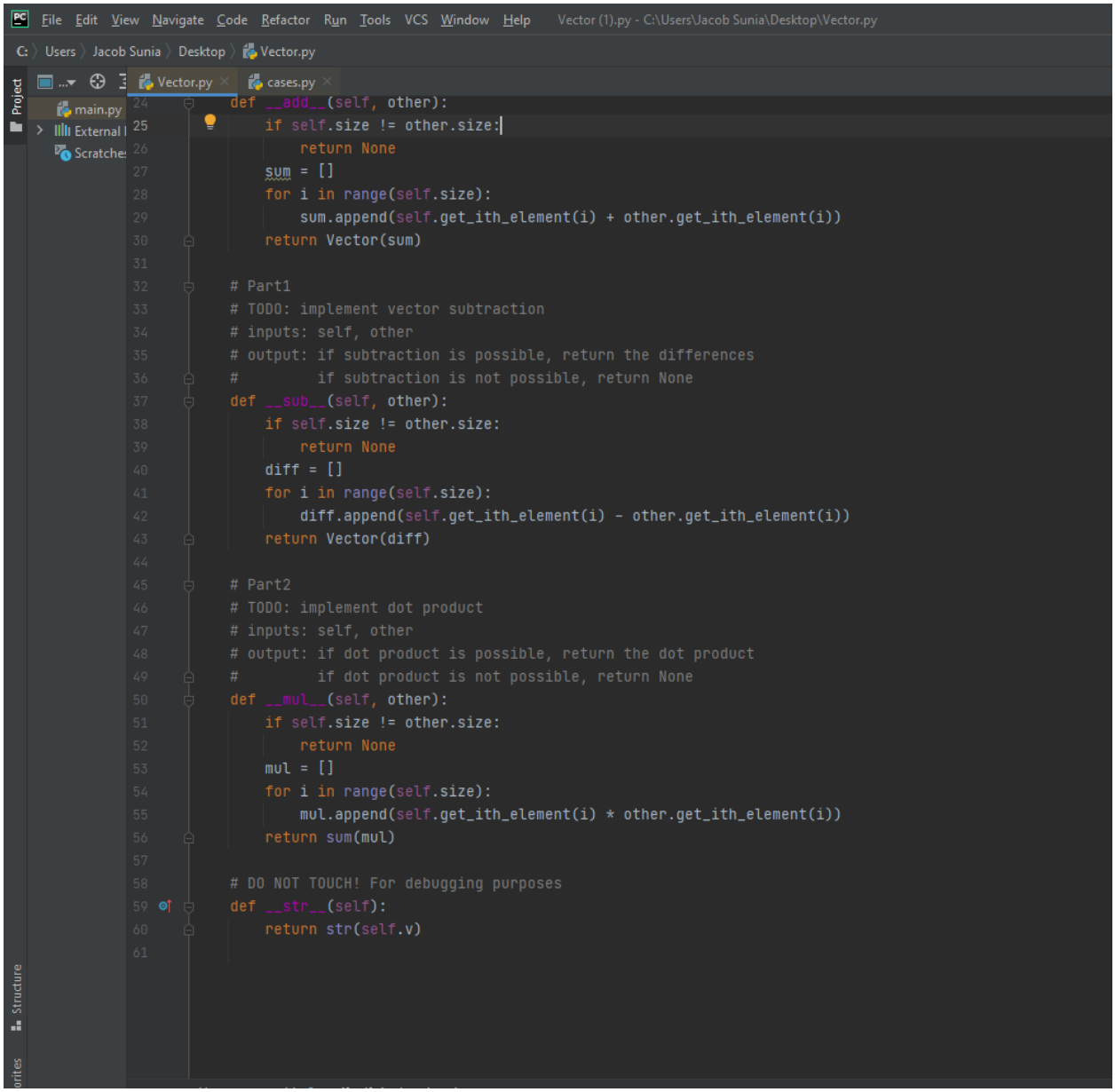
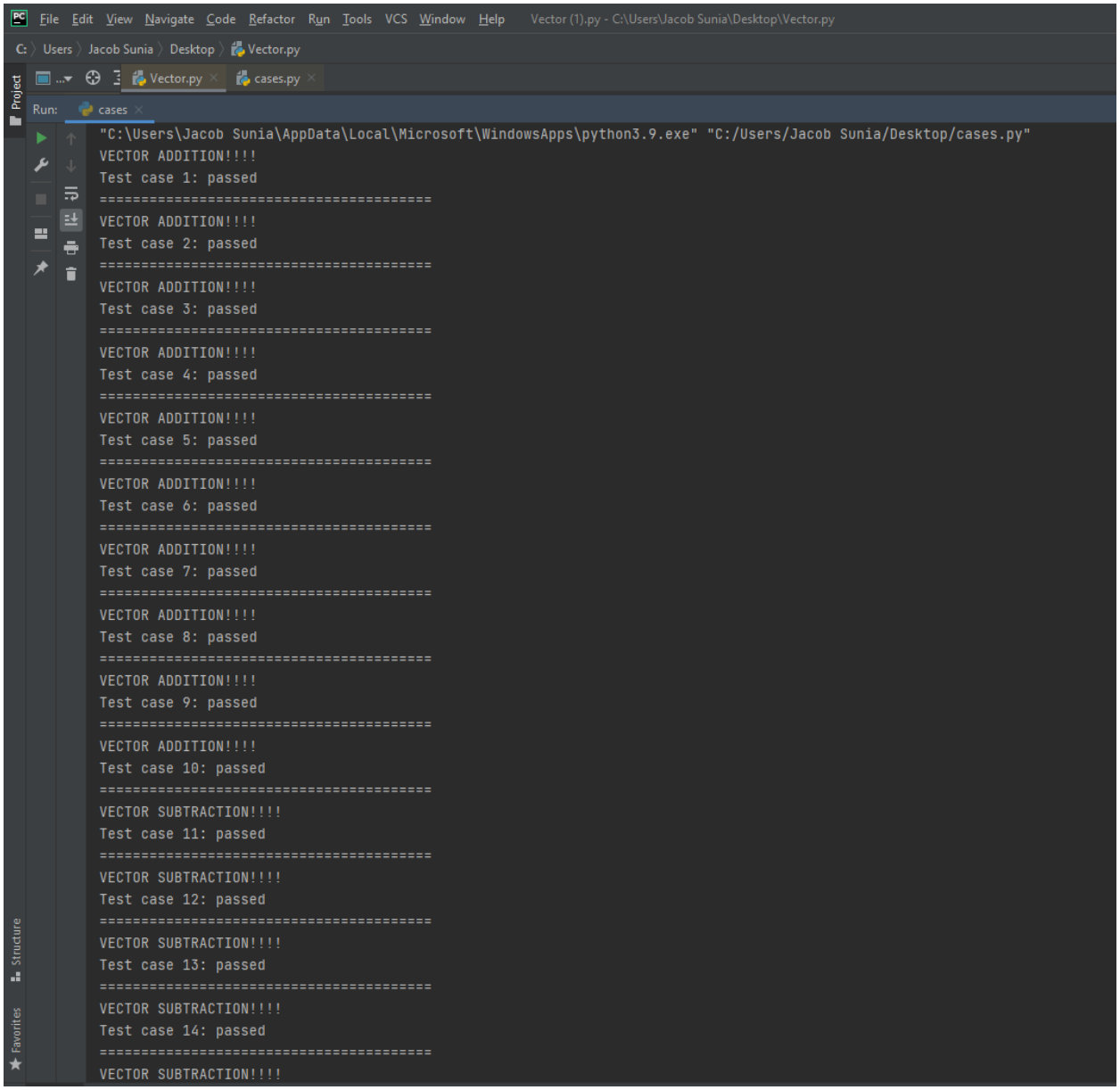
Programming Assignment # 4 Jacob Sunia

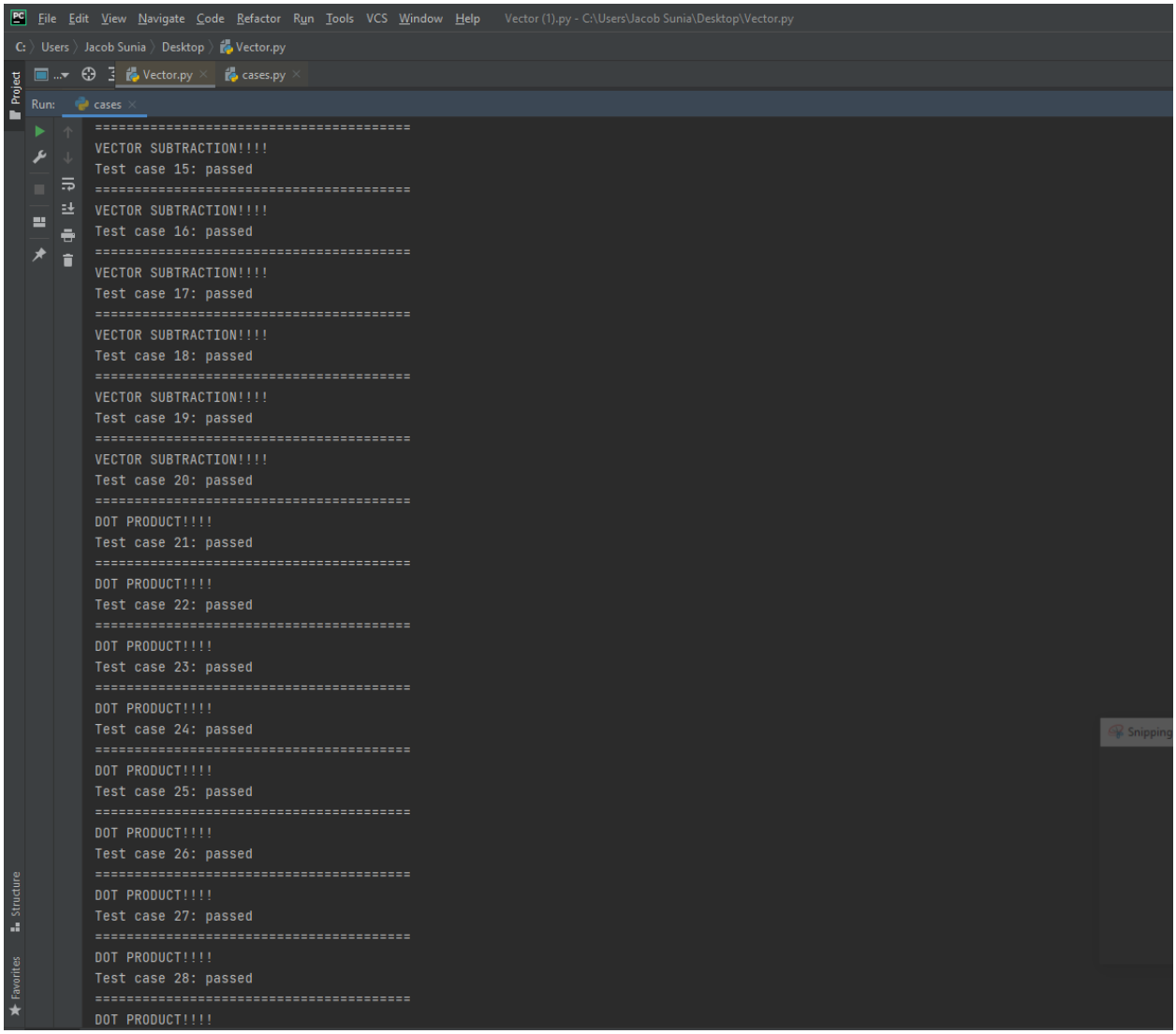
Code:

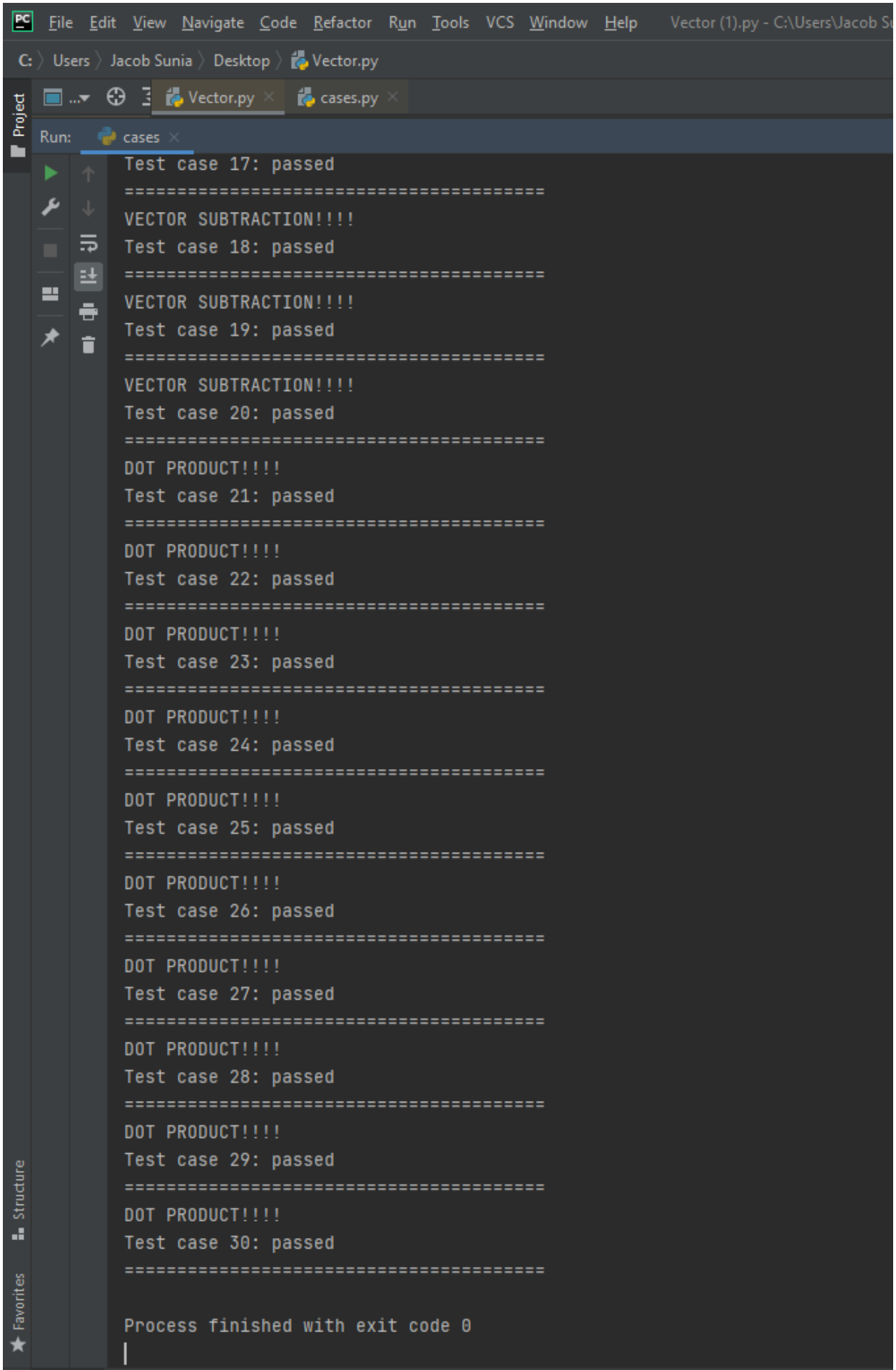



File Edit View Navigate Code Refactor Run Tools VCS Window Help
Vector (1).py - C:\Users\Jacob Sunia\Desktop\Vector.py
C: Users Jacob Sunia Desktop Vector.py
Vector.py
cases.py
main.py
External
Scratche
Project
Structure
def __add__(self, other):
if self.size != other.size:
return None
sum = []
for i in range(self.size):
sum.append(self.get_ith_element(i) + other.get_ith_element(i))
return Vector(sum)
# Part1
# TODO: implement vector subtraction
# inputs: self, other
# output: if subtraction is possible, return the differences
# if subtraction is not possible, return None
def __sub__(self, other):
if self.size != other.size:
return None
diff = []
for i in range(self.size):
diff.append(self.get_ith_element(i) - other.get_ith_element(i))
return Vector(diff)
# Part2
# TODO: implement dot product
# inputs: self, other
# output: if dot product is possible, return the dot product
# if dot product is not possible, return None
def __mul__(self, other):
if self.size != other.size:
return None
mul = []
for i in range(self.size):
mul.append(self.get_ith_element(i) * other.get_ith_element(i))
return sum(mul)
# DO NOT TOUCH! For debugging purposes
def __str__(self):
return str(self.v)

Output:


File Edit View Navigate Code Refactor Run Tools VCS Window Help
Vector (1).py - C:\Users\Jacob Sunia\Desktop\Vector.py
C: Users Jacob Sunia Desktop Vector.py
Vector.py
cases.py
Run:
cases
"C:\Users\Jacob Sunia\AppData\Local\Microsoft\WindowsApps\python3.9.exe" "C:/Users/Jacob Sunia/Desktop/cases.py"
VECTOR ADDITION!!!!
Test case 1: passed
VECTOR ADDITION!!!!
Test case 2: passed
VECTOR ADDITION!!!!
Test case 3: passed
VECTOR ADDITION!!!!
Test case 4: passed
VECTOR ADDITION!!!!
Test case 5: passed
VECTOR ADDITION!!!!
Test case 6: passed
VECTOR ADDITION!!!!
Test case 7: passed
VECTOR ADDITION!!!!
Test case 8: passed
VECTOR ADDITION!!!!
Test case 9: passed
VECTOR ADDITION!!!!
Test case 10: passed
VECTOR SUBTRACTION!!!!
Test case 11: passed
VECTOR SUBTRACTION!!!!
Test case 12: passed
VECTOR SUBTRACTION!!!!
Test case 13: passed
VECTOR SUBTRACTION!!!!
Test case 14: passed
VECTOR SUBTRACTION!!!!
Project
Structure
Favorites


File Edit View Navigate Code Refactor Run Tools VCS Window Help
Vector (1).py - C:\Users\Jacob Sunia\Desktop\Vector.py
C: Users Jacob Sunia Desktop Vector.py
Vector.py
cases.py
Run:
cases
==========
VECTOR SUBTRACTION!!!!
Test case 15: passed
==========
VECTOR SUBTRACTION!!!!
Test case 16: passed
==========
VECTOR SUBTRACTION!!!!
Test case 17: passed
==========
VECTOR SUBTRACTION!!!!
Test case 18: passed
==========
VECTOR SUBTRACTION!!!!
Test case 19: passed
==========
VECTOR SUBTRACTION!!!!
Test case 20: passed
==========
DOT PRODUCT!!!!
Test case 21: passed
==========
DOT PRODUCT!!!!
Test case 22: passed
==========
DOT PRODUCT!!!!
Test case 23: passed
==========
DOT PRODUCT!!!!
Test case 24: passed
==========
DOT PRODUCT!!!!
Test case 25: passed
==========
DOT PRODUCT!!!!
Test case 26: passed
==========
DOT PRODUCT!!!!
Test case 27: passed
==========
DOT PRODUCT!!!!
Test case 28: passed
==========
DOT PRODUCT!!!!
Project
Structure
Favorites


File Edit View Navigate Code Refactor Run Tools VCS Window Help
Vector (1).py - C:\Users\Jacob S
C: Users Jacob Sunia Desktop Vector.py
Project
Vector.py
cases.py
Run:
cases
Test case 17: passed
==========
VECTOR SUBTRACTION!!!!
Test case 18: passed
==========
VECTOR SUBTRACTION!!!!
Test case 19: passed
==========
VECTOR SUBTRACTION!!!!
Test case 20: passed
==========
DOT PRODUCT!!!!
Test case 21: passed
==========
DOT PRODUCT!!!!
Test case 22: passed
==========
DOT PRODUCT!!!!
Test case 23: passed
==========
DOT PRODUCT!!!!
Test case 24: passed
==========
DOT PRODUCT!!!!
Test case 25: passed
==========
DOT PRODUCT!!!!
Test case 26: passed
==========
DOT PRODUCT!!!!
Test case 27: passed
==========
DOT PRODUCT!!!!
Test case 28: passed
==========
DOT PRODUCT!!!!
Test case 29: passed
==========
DOT PRODUCT!!!!
Test case 30: passed
==========
Process finished with exit code 0
Structure
Favorites